

20. The cosmetic or pharmaceutical oil-in-water emulsion of Claim 19 wherein said polar waxes are selected from the group consisting of stearyl alcohol, stearic acid, glyceryl stearate and mixtures thereof.

21. The cosmetic or pharmaceutical oil-in-water emulsion of Claim 18, wherein the proportion of the polyether siloxane of the general formula (I), in the case of the presence of coemulsifiers is, based on the total amount of the emulsifiers, at least 50% by weight.

22. The cosmetic or pharmaceutical oil-in-water emulsion of Claim 21 wherein the proportion of polyether siloxane is 65 to 95%, by weight.

23. The cosmetic or pharmaceutical oil-in-water emulsion of Claim 18 wherein the proportion of the coemulsifier of the total amount of the emulsifiers is 5 to 49%, by weight.

24. The cosmetic or pharmaceutical oil-in-water emulsion of Claim 17 which is free from a silicone-oil.--

#### REMARKS

Favorable reconsideration and allowance of the claims of the present application are respectfully requested.

In the present Office Action, Claims 2, 5-8, and 10 stand rejected under 35 U.S.C. §112, second paragraph, as allegedly indefinite for failing to particularly point and distinctly claim the subject matter which applicants regard as the invention.

In response to the indefiniteness rejection, applicants have canceled Claim 10, without prejudice or disclaimer, and have amended Claims 1, 2, 8 and 9 in the above-identified manner. Specifically, Claim 1 has been amended to positively recite that the claimed oil-in-water emulsion is free from silicone oils. Support for this amendment to Claim 1 is found at

Page 6, lines 18-20 of the specification of the instant application as well as in canceled Claim 10.

The remaining amendments to Claims 2, 8 and 9 are minor and are of a clerical nature; therefore no further comments concerning those claims are deemed necessary. Applicants submit that the above amendments to the claims obviate the 35 U.S.C. §112, second paragraph, rejection. Reconsideration and withdrawal of the instant §112, second paragraph rejection is thus respectfully requested.

In addition to the above amendments to the claims, applicants have also added new Claims 12-16, which are directed to a process of preparing an oil-in-water emulsion using the recited polyether siloxane as an emulsifying agent. Support for the newly added claims can be found in the various examples of the present invention. See, in particular, Page 24, lines 5-7 for a description of the process features recited in new Claim 12. Newly added independent Claims 13-16 are further supported by the originally filed independent claims.

Applicants have also added new Claims 17-24 which are directed to a cosmetic or pharmaceutical oil-in-emulsion which includes 10 weight % or less of an alcohol and the inventive polyether siloxane emulsifier. Support for new Claim 17 is found in the examples, in particular Example 1 wherein 10 weight percent alcohol is employed and the remaining examples where no alcohol is employed. Newly added Claims 18-24 are based upon the original independent claims in the present application.

As required under 37 C.F.R. §1.121, applicants have attached a marked-up copy showing the changes made to the claims by the present amendment. The attachment is captioned as "**MARKE**D-UP VERSION SHOWING CHANGES MADE".

Claims 1-11 stand rejected under 35 U.S.C. §102(b) as allegedly anticipated by U.S. Patent No. 5,965,115 to Bolich, Jr. et al. Claims 1-11 also stand rejected under 35 U.S.C. §103 as allegedly unpatentable over Bolich, Jr. et al.

Concerning the §102(b) rejection, it is axiomatic that anticipation under §102 requires that the prior art reference disclose each and every element of the claim to which it is applied. In re King, 801 F.2d, 1324, 1326, 231 USPQ 136, 138 (Fed. Cir. 1996). Thus, there must be no differences between the subject matter of the claim and the disclosure of the prior art reference. Stated another way, the reference must contain within its four corners adequate direction to practice the invention as claimed. The corollary of the rule is equally applicable: Absence from the applied reference of any claimed element negates anticipation. Kloster Speedsteel AB v. Crucible Inc., 793 F.2d 1565, 1571, 230 USPQ 81, 84 (Fed. Cir. 1986).

Applicants submit that the amended oil-in-water emulsion claims of the present application are not anticipated by the disclosure of Bolich, Jr. et al. since the applied reference does not disclose applicants' claimed oil-in-water emulsion which is *free of silicone oils*. Applicants respectfully submit that the claimed polyether siloxane is not a stabilizer, but instead it is an emulsifier which is used in the present invention to emulsify one or more of the silicone-free oils listed at Page 12, line 6 through Page 13, line 8 of the specification of the instant application.

In contrast, Bolich, Jr. et al. provide a personnel care composition suitable for application to the hair, skin or nails which comprises (a) a polyorganosiloxane emulsion comprising (i) a polyorganosiloxane oil having the formula  $-[R^1 R^2 Si-O]_n-$  where  $R^1$  and  $R^2$  are each independently C<sub>1-7</sub> alkyl or phenyl, and (ii) a surfactant system for dispersing the organopolysiloxane; (b) a silicone-polyoxyalkylene copolymer surfactant; and (c) a solvent.

Applicants respectfully submit that the organopolysiloxane disclosed in Bolich, Jr. et al. is a silicone oil; therefore the oil-in-water emulsion of the claimed invention is not anticipated by the disclosure of Bolich, Jr. et al.

Moreover, applicants submit that the silicone-polyoxyalkylene copolymer surfactant disclosed in the applied reference is used to stabilize the silicone oil emulsion. See Col. 9, lines 50-52. There is no disclosure in the applied reference which teaches that the silicone-polyoxyalkylene copolymer surfactant can be used as an emulsifying agent for a non-silicone oil.

The foregoing remarks clearly indicate that the applied reference does not teach each and every aspect of the claimed invention, as required by King and Kloster Speedsteel; therefore the claims of the present application are not anticipated by the disclosure of Bolich, Jr. et al. Applicants respectfully submit that the instant §102 rejection has been obviated and withdrawal thereof is respectfully requested.

In regard to the §103 rejection citing Bolich, Jr. et al., applicants respectfully submit that the remarks made above concerning the teachings of the cited reference apply to the obviousness rejection. Accordingly, applicants incorporate those remarks herein by reference. To reiterate: Bolich, Jr. et al., do not teach or suggest applicants' claimed oil-in-water emulsion which is *free of silicone oils*.

In contrast, Bolich, Jr. et al. provide a personnel care composition which includes an organopolysiloxane oil having the formula  $-[R^1R^2Si-O]_n-$  where  $R^1$  and  $R^2$  are each independently  $C_{1-7}$  alkyl or phenyl. There is no disclosure in Bolich, Jr. et al. which teaches or suggests replacing the disclosed silicone oil with a non-silicone oil so as to obtain an oil-in-

water emulsion that is free of silicone oils. As such, the claimed oil-in-water emulsion which is free of silicone oils is not obvious from the disclosure of Bolich, Jr. et al.

In view of the above remarks, the rejection under 35 U.S.C. §103 has been obviated. Applicants therefore request reconsideration and withdrawal of the instant §103 rejection.

Applicants respectfully submit that newly added Claims 12-16 are patentably distinguished from the disclosure of Bolich, Jr. et al. since the applied reference does not teach or suggest using the claimed polyether siloxane to emulsify a silicone-oil free oil phase in a water phase as presently claimed. Moreover, applicants respectfully submit that newly added Claims 17-24 are patentably distinguished from the disclosure of Bolich, Jr. et al. since the applied reference does not teach or suggest an oil-in-water emulsion which includes the claimed polyether siloxane compound in combination with 10 weight % or less of an alcohol. Instead, Bolich, Jr., et al. disclose an emulsion which includes at least about 40 weight % of a secondary solvent which may include an alcohol.

Thus, in view of the foregoing amendments and remarks, it is firmly believed that the present case is in condition for allowance, which action is earnestly solicited.

Respectfully submitted,



Frank S. DiGiglio  
Registration No. 31,346

SCULLY, SCOTT, MURPHY & PRESSER  
400 Garden City Plaza  
Garden City, New York 11530  
(516) 742-4343

FSD:LSS:tt

**ATTACHMENT: MARKED-UP VERSION SHOWING CHANGES MADE  
IN THE CLAIMS:**

Please cancel Claim 10, without prejudice or disclaimer, and amend Claims 1, 2,  
8 and 9 to read as follows:

1. (Amended) A cosmetic or pharmaceutical oil-in-water emulsion which comprises at least one polyether siloxane[s] of the general formula (I)



where

$n = 50$  to  $250$

$R = -(CH_2)_m-O-(C_2H_4O)_x-(C_3H_6O)_yR'$

$m = 2$  to  $4$

$x = 3$  to  $100$

$y = 0$  to  $50$

$R' = H, CH_3,$  or  $CH_2CH_3,$

having a proportion by weight of the polyether radicals  $R$  of up to  $45\%$ , by weight, of the total molecular mass[, calculated according to formula (II)]

“proportion by weight” (in %) of the polyether radicals  $R$  of the total molecular mass =  
 $(MW_{polyether\ radicals}/MW_{total}) \bullet 100$  (II)

where

$$MW_{total} = MW_{silicone\ radical} + MW_{polyether\ radicals}$$

$$MW_{silicone\ radical} = n \bullet 74.1 + 132.2$$

$MW_{polyether\ radicals} = 2 \cdot (m \cdot 14 + 16 + x \cdot 44 + y \cdot 58 + z)$  where  $z = 1, 15$  or  $29$ , wherein said oil-in-water emulsion is free of silicone oils.

2. (Amended) The cosmetic or pharmaceutical oil-in-water emulsion of Claim 1 further comprising at least one optional coemulsifier[s;] and at least one stabilizer selected from the group consisting of a liquid-crystalline-structure forming hydrophilic wax [es;], a water-swellable organopolymer[s;], and a mixture[s] of a liquid-crystalline-structure forming hydrophilic wax[es] and a water swellable organopolymer[s; cosmetic waxes; cosmetic oils; customary auxiliaries; or active ingredients].

8. (Amended) The cosmetic or pharmaceutical oil-in-water emulsion of Claim 7 wherein said [portion] proportion is from 10 to 35%, by weight.

9. (Amended) The cosmetic or pharmaceutical oil-in-water emulsion of Claim [2] 1 further comprising [wherein the further] auxiliaries and additives [are] selected from the group consisting of UV light protecting filters, antioxidants, preservatives, insect repellents, self-tanning agents, perfume oils, dyes and active ingredients.

Please add the following new claims:

--12. A process of preparing an oil-in-water emulsion comprising:  
emulsifying a silicone oil-free oil phase in a water phase with at least one polyether siloxane of the general formula (I)



where

$n = 50$  to  $250$

$R = -(CH_2)_m-O-(C_2H_4O)_x-(C_3H_6O)_yR'$

$m = 2$  to  $4$

$x = 3$  to  $100$

y = 0 to 50

R<sup>1</sup> = H, CH<sub>3</sub>, or CH<sub>2</sub>CH<sub>3</sub>,

having a proportion by weight of the polyether radicals R of up to 45% of the total molecular mass.

13. The process of Claim 12 wherein said oil-in-water emulsion further comprises a coemulsifier.

14. The process of Claim 12 wherein said oil phase is free of chain-shaped or volatile cyclic polydimethylsiloxanes.

15. The process of Claim 12 wherein said oil-in-water emulsion further comprises at least one stabilizer selected from the group consisting of liquid-crystalline-structure forming hydrophilic waxes, water swellable organopolymers and combinations thereof.

16. The process of Claim 15 wherein said liquid-crystalline-structure forming hydrophilic wax is selected from the group consisting of stearyl alcohol, stearic acid, glyceryl stearate and mixtures thereof.

17. A cosmetic or pharmaceutical oil-in-water emulsion which comprises 10 weight percent or less of an alcohol; and at least one polyether siloxane of the general formula (I)



where

n = 50 to 250

R = -(CH<sub>2</sub>)<sub>m</sub>-O-(C<sub>2</sub>H<sub>4</sub>O)<sub>x</sub>-(C<sub>3</sub>H<sub>6</sub>O)<sub>y</sub>R<sup>1</sup>

m = 2 to 4

x = 3 to 100

y = 0 to 50

R<sup>1</sup> = H, CH<sub>3</sub>, or CH<sub>2</sub>CH<sub>3</sub>,

having a proportion by weight of the polyether radicals R of up to 45%, by weight, of the total molecular mass.

18. The cosmetic or pharmaceutical oil-in-water emulsion of Claim 17 further comprising at least one optional coemulsifier and at least one stabilizer selected from the group consisting of a liquid-crystalline-structure forming hydrophilic wax, a water-swellable organopolymer, and a mixture of a liquid-crystalline-structure forming hydrophilic wax and a water swellable organopolymer.

19. The cosmetic or pharmaceutical oil-in-water emulsion of Claim 17 further comprising polar waxes and a coemulsifier.

20. The cosmetic or pharmaceutical oil-in-water emulsion of Claim 19 wherein said polar waxes are selected from the group consisting of stearyl alcohol, stearic acid, glyceryl stearate and mixtures thereof.

21. The cosmetic or pharmaceutical oil-in-water emulsion of Claim 18, wherein the proportion of the polyether siloxane of the general formula (I), in the case of the presence of coemulsifiers is, based on the total amount of the emulsifiers, at least 50% by weight.

22. The cosmetic or pharmaceutical oil-in-water emulsion of Claim 21 wherein the proportion of polyether siloxane is 65 to 95%, by weight.

23. The cosmetic or pharmaceutical oil-in-water emulsion of Claim 18 wherein the proportion of the coemulsifier of the total amount of the emulsifiers is 5 to 49%, by weight.

24. The cosmetic or pharmaceutical oil-in-water emulsion of Claim 17 which is free from a silicone-oil.--